



NEWSLETTER
DECEMBER, 1982.

THE FEDERAL PRESIDENT'S COLUMN

A very important event occurred in Melbourne on Friday, 12th Nov. The Department of Conservative Dentistry, through the efforts of the joint convenors, Drs. F. Wright and A. J. Spencer, as part of continuing education in Dentistry, conducted an all day seminar on "Children's & Community Dentistry". Some 50 participants representing a wide spectrum of disciplines were present.

The programme covered a wide range of topics namely, The Changing Pattern of Dental Disease; The W.H.O. International Collaborative Study; The Nature and Consequences of Social and Economic Structures in the Delivery of Dental care, just to name a few.

The meeting was highly successful and it became increasingly evident that more research and particularly interdisciplinary research needs to be undertaken in order to understand the problems in the community.

At the close of the meeting, the participants unanimously voted the formation of the "Association for the Study of Community Dentistry" (ASCOD) and Drs. Spencer and Wright accepted the task of establishing a constitution and articles of association. Once ASCOD is formed, the next step will be the formation of State branches?.

The second item of news is related to the February - May 1979 Australian Bureau of Statistics (ABS) publications. Table 30, page 25, Catalogue No. 4337 shows the age at which children first visited the dentist. The proportion of children age 2-10 years who first visited the dentist are as follows - 22.4% were less than 3 years old, 46.4% were between 3 and less than 5 years of age; 24.9% were 5 to less than 7 years of age and 6.3% were 7 years or older. It is interesting to note that 99.9% of children aged less than 3 years had visited the dentist.

Table 23, page 21, reveals that 82.8% of persons aged 2-14 years attend the dentist once a year. However, in comparison only 44.1% of persons aged 15 years and over attend the dentist once a year (Table 8, page 11, Catalogue No. 4339).

It would seem there are problems in meeting the 12 monthly dental visit once a person turns 15 years. This has certainly been evident once children pass out of the School Dental System.

I pose the question - have we in fact an over supply of dentists or is the downturn in patient compliance to annual check-ups due to lack of patient motivation for whatever reason it may be?

Des Kailis



9th CONGRESS

INTERNATIONAL ASSOCIATION OF DENTISTRY FOR CHILDREN

MELBOURNE - 21st-24th FEBRUARY 1983

All A.S.D.C. MEMBERS TO BE HOSTS

The Organising Committee is depending upon a high level of attendance by members of State Branches of A.S.D.C. to work with Victorian members as hosts to the expected 400 overseas guests from 25 countries, attending the 9th I.A.D.C. Congress in February.

The Governor-General of Australia, Sir Ninian Stephen will open the Congress.

The Scientific Programme (see page 7) is of a high standard with many internationally known names in Pedodontics presenting papers.

A fine social programme has been arranged with a spectacular Reception in the Great Hall of the Victorian Arts Centre Gallery with a sumptuous buffet, members of the 3rd Military District Band, and viewing of the Asian Gallery. Victorian members are opening their homes to overseas and local delegates for dinner on Tuesday evening, and the social events conclude on Wednesday night with a Bush Banquet at the 19th century mansion, Werribee Park, where there will be demonstrations of sheep shearing and sheep dogs working before dinner, with dancing later to "The Bandicoots" Bush Band.

Bring your spouses and friends to join in the specially planned Accompanying Persons Programme with river trip and luncheon at Leonda Restaurant on the Yarra River - the attractive venue of many Regal occasions. Other events are a Harbour Cruise and visit to Healesville Wildlife Sanctuary, and a Special Talk on "Testtube babies"(in vitro fertilization) by a member of Professor Carl Wood's internationally known team.

There has been a pleasing response by the Dental Trades and Drug Companies for Sponsorship, and a Trade Display will be held.

JOIN US AT THIS EXCITING CONGRESS - MEET YOUR FRIENDS FROM THE UNITED KINGDOM, EUROPE, AMERICA AND OTHER I.A.D.C. MEMBER COUNTRIES - MAKE MANY NEW FRIENDS AND VALUABLE CONTACTS.

REGISTER NOW

Roger Hall,
Chairman Organising Committee

9th CONGRESS I.A.D.C.
SCIENTIFIC PROGRAMME - OUTLINE

The Scientific Programme for the 9th Congress has been designed to provide the opportunity for Congress registrants to learn about practical preventive pedodontics from many different countries, to update on the relationship of pediatrics in pedodontics as well as to provide the facilities to meet our colleagues from overseas.

To this end there will be several modes of presentations. The Guest Lecturer will be supported by invited lecturers, a symposium, free papers, poster papers, silent clinics, table demonstrations, video presentations and also a Trade Exhibit.

Professor Goran Koch

The Guest Lecturer is Professor Goran Koch who will present four one hour lectures entitled;

1. Decreasing prevalence of dental caries - the Swedish experience.
2. Development of a preventive dental care programme.
3. Topical fluorides - methods and results.
4. Gingival and periodontal disease in children - prevalence and prophylactic approach.

Professor Koch graduated at the Royal Dental School, Malmo, Sweden in 1960. In 1968 he was appointed Associate Professor and during the period 1968-1977 he was in half time in private practice and half-time in the dental school.

In 1972 he was appointed Head of the Pedodontic Department of the Institute for Post graduate Dental Education in Jankoping. In March 1981 he was appointed Professor and Chairman in Pedodontics at the Karolinska Institute in Stockholm and in December 1981 he was appointed Chairman in Pedodontics, University of Gothenburg. He is author or co-author of more than 90 scientific papers.

Professor G.N. Davies

A special one hour lecture will be delivered by Deputy Vice Chancellor (Academic), Emeritus Professor G.N. Davies entitled "Dental care for Children in Developing Countries". The lecture will compare and contrast systems of delivering dental services for children in Australia, New Zealand, Denmark and England, and from that analysis draw conclusions which should be considered by those responsible for the establishment and operation of school dental services in developing countries.

Recently Professor Davies has attended the F.D.I. Congress in Vienna to present along with colleagues from the U.K. and Denmark their assessment of "The Oral Health Service for Children in Denmark".

Continued Page 4.

The Invited Lecturers will present a half hour lecture.

Professor Stephen Moss

Professor Stephen Moss will present "Changing perspectives in diet and caries research". During the lecture an exciting five minute video tape will be shown.

Professor Moss is Chairman, Department of Pedodontics, New York University Dental Center. He is Past President of the American Academy of Pedodontics. He is a noted author, lecturer and film producer.

As Chairman of I.A.D.C.'s Educational Programme Professor Moss will give another lecture to demonstrate to the membership some examples of the materials that have been collected for that programme.

Mr. John Norman

Mr. John E. de Burgh Norman will discuss "Recent advances in diagnosis and management of congenital and acquired disorders of the mouth, face and jaws". This innovative lecture should stimulate some spirited discussion. Mr. Norman is a Maxillo Facial Surgeon in Sydney, he was the 1980/81 Hunterian Professor, Royal College of Surgeons, Eng.

Professor E. Storey

Professor Elsdon Storey will discuss his recent research on "Phosphoprotein". He is Professor of Child Dental Health and Chairman, Department of Conservative Dentistry, University of Melbourne.

Professor Yoshida

Professor Yoshida of the Gifu College of Dentistry, Gifu, Japan will also present an invited paper.

Another main feature is the:

Seminar - "Current Advances in Paediatrics" - "Update for General Dental Practitioners and Paedodontists"

Experts in their specialty areas will discuss this topic under the Chairmanship of Dr. John Court, Director of Developmental Paediatrics, and Director of Adolescent Services at the Royal Children's Hospital, Melbourne. Other panellists are Professor David Danks (Geneticist), Dr. Max Robinson (Paediatrics), Dr. Henry Ekert (Haematology and Oncology), Mr. Roger Mee (Cardiac Surgery and Cardiology). Dental aspects will be discussed by Dr. Arlie Dungy, of the Children's Hospital, Eastern Ontario.

There will be plenty of time allocated for questions from delegates.

Free Papers

Approximately 60 'free papers' will be presented including those listed on pages 7 & 12.

Unfortunately only a few have indicated that they wish to present poster papers or table demonstrations. Please forward your name and the title of poster papers or table demonstration immediately so that it may be included in the official programme.

It is anticipated that the complete scientific programme of the Congress will be printed in a special edition of the newsletter in January.

Kevin Allen

Scientific Programme Committee

FEDERAL SECRETARY'S REPORT

\$2000 has been deposited with the Commonwealth Bank as an interest bearing deposit. The General Meeting in Perth, commissioned the secretary/treasurer to seek out an appropriate term deposit. Most high interest opportunities did not have Trustee status, and the others required massive paper work for very little more interest than our bank offered. The conclusion was: surely there is something better we can do with our money than put it on term deposit?

The search has begun for overseas lecturers to sponsor in the years beyond 1983.

Our membership is now on the master list of A.D.A. membership in the A.D.A. computer. Print-outs of lists or adhesive address labels are available to A.S.D.C. branch secretaries at a fee from the A.D.A. Federal secretariat.

John Brownbill

FROM THE BRANCHES

S.A. Branch

Our last meeting for 1982 was held on 26th October and was attended by thirteen members. We had a change of venue, to a private room in a B.Y.O. Restaurant, and this proved popular and appeared successful. However the evening was not without its hitches, because with all the other equipment in place we found we had omitted to bring the Carosell !! But with great speed and good grace John Burrow fetched his own projector from his home and so saved the day.

Our guest speaker, Dr. Allan Gale, an Allergist in private practice and at the Adelaide Childrens' Hospital spoke about "Common Allergic Reactions and the Allergic Emergency". He

briefly outlined some of the immunological reactions involved in an allergic response and explained some of the difficulties in isolating allergens. He also listed what he considered to be useful and necessary items/drugs etc. for an emergency kit which should be kept in every surgery. A very useful discussion followed the talk.

So far, no definite plans have been made for 1983, but the committee, President; Joe Verco, - Vice-President; Micky Bevan, - Secretary; John Kibble will be meeting in the very near future and proposed dates and details of meetings will be advertised in due course.

We expect more than half of our members will be travelling to Melbourne for the I.A.D.C. Congress. We are looking forward to it and wish the organising committee every success.

In conclusion, on behalf of the S.A. Branch, I wish all A.S.D.C. members the compliments of the Season.

John Kibble

Queensland Branch

The Annual General Meeting was held at the United Services Club on the 11th October. President John Keys presented his second annual report on the tenth anniversary of our society.

During the year we have accomplished two significant firsts:

1. We passed the thirty membership barrier - now having thirty-two.
2. We utilized the services of an out of state lecturer at our clinical week-end.

Dr. John Brown was elected President, Bill Whittle our new Committee Members, Kerrod Hallett our new Secretary and the irrepressible John Keys our Federal representative.

Queensland Branch Continued

The December bi-monthly meeting will be held at the new A.D.A. branch headquarters. Dr. J. Jago will speak on his work at the Qld. Dental Care Research Centre.

Kerrod Hallett

Victorian Branch

The branch met on 30th September at University House; 47 members and their guests were present to hear Dr. Alan Carmichael of the Royal Children's Hospital, Parkville speak on "Infant Health in Brunswick".

Dr. Carmichael regards infant health as a measure of community health. Infant mortality has fallen since the 1920's when there were 60 infant deaths per 1000 live births to the present 20 per 1000 live births. With the declining birth-rate infant morbidity is now considered a better index of infant health.

Brunswick has a population of 46,000, of whom 60% are Australian born. All other ethnic groups are represented, notably Italian, Greek, Turkish and Lebanese migrants. In the child-bearing ages there is an emphasis on the overseas born population compared with the Australian born population. Thirty per cent of the mothers have difficulty in speaking English.

Through the 24 week period of the investigation 377 births occurred and 272 of these families were available for investigation of infant health. Investigation was commenced by the Child Nurse who visited the mothers when the child was six weeks old. Further interviews were carried out at twenty-four weeks. Pediatrician interviews were also conducted. Social Worker interviews sought to determine the pre-natal experiences with each birth. There were found to be 1800 variables possible per family within this investigation.

The socio-economic status of the families were determined using the Henderson Poverty Line. The

group fell into poor (15%), near poor (17%) and not poor (68%).

The morbidity rate for acute episodic illness was 44.3% comprising respiratory tract illness (50%), gastro-intestinal tract disorders (13%) and skin disorders (10%). Fifty percent of cases presenting required medical attention. The mean period of the illness involvement was fifty days in the sixth of the forty-four week time of the investigation.

Chronic illness presented in 82 of 304 cases, and extended through a period of over ninety days. Chronic illnesses comprised skin disorders (23%), lower respiratory tract disorders (15%), gastro-intestinal tract problems (9%) and emotional/behavioural problems (8%). Behavioural disturbances were associated with poor psychological health in the mother. This was minimized where support was given by a father figure, or an extended family. Crowding and poverty in the home exacerbated behavioural problems.

No child showed a failure to thrive through growth, and serious morbidity was present in only four per cent of cases - (congenital abnormalities).

Prolonged breast-feeding was associated with lower incidence of episodic disease. There was no ethnic difference in the period of breast-feeding and the introduction of solid food. However, longer breast-feeding and later solid food introduction was associated with higher education-level.

Dr. Carmichael's lecture was followed by an informative question period.

Members of the Victorian Branch are looking forward to 1983, in particular to entertaining interstate visitors for the International Congress in Melbourne in February.

Gordon Hinrichsen

N.S.W. Branch

On September 21 the meeting was addressed by Dr. Graham Craig. His topic was "Glass Ionomer Cements in Preventive Dentistry for the Young". This was well attended by the regular core of members which allowed for lengthy questions and discussion at the end of Dr. Craig's lecture.

The lecture covered in detail the variations of properties and brands of Glass Ionomer cements together with their use in preventive and restorative dentistry. Discussion afterwards covered a variety of topics including fluoride tooth pastes, bottle feeding and fluoride supplements along with the film "And What About Sugar". An enlightening meeting for all those members and guests who attended.

The branch's recent efforts in making a submission to the Dental Board of N.S.W. on specialist registration requirements has been rewarded with the request by the Board's committee chairman to nominate a panel of experts for future reference.

Our final meeting for 1982 will be the Annual General Meeting on November 16th which includes a tape slide presentation by the 3M company - "P-10 a Resin Bonded Ceramic - why did 3M develop a Resin Bonded Ceramic?" This will outline the development of an aesthetic material for posterior restorations as an alternative to amalgam.

Meeting dates for 1983 will be as follows: March 15, May 31, July 19, September 20, and November 15.

John Lockwood

Galod, H.
Israel

Stempler, E.M.
Argentina

Pulver, F.
Canada

FREE PAPERS LIST

Children's anxiety to dental treatment as expressed by their drawings and the G.S.R.

Periodontal disease in children and adolescents.

The acid-etched fixed bridge.

W.A. Branch

The final meeting for 1982 was held on November 25th. This was in the usual form for the final meeting of the year - a dinner meeting to which members partners are invited. The venue for this year's meeting was the recently opened Kings Hotel in Perth. It was indeed a pity the meeting was not as well attended as had been the case in previous years, as all present enjoyed a most pleasant evening. Guests-of-Honour were Peter and Sylvia Gregory. They recounted the highlights of their stay in the United States. It was most interesting to hear their views on living (or should we say surviving) in that country. Sylvia spoke to us of the childrens' schooling and of her challenge to life in the suburbs; whereas Peter talked about his challenge in Chicago as a whole. He then briefly spoke highly of the North West University Dental School and the Childrens Memorial Hospital which he attended in Chicago. It was a most comprehensive and fascinating lecture. Like all who travel away from this part of the world, their trip has obviously made them far more appreciative of their home.

With 1982 now behind us, those involved in Congress will be looking forward to things returning to normal in 1983 as far as Branch activities are concerned. An obvious priority will be attention to flagging membership numbers.

Alistair Devlin

Summaries of Papers presented at the Joint Meeting of A.S.E. and A.S.D.C. in Perth, 30th April, 1982, by Professor Lars Granath.

Professor Lars Granath* was the principal speaker at the Joint Pre-Congress Meeting of the A.S.E. and A.S.D.C. when he presented four lectures. With the active co-operation of Professor Granath summaries of his four presentations have been made for inclusion in the Newsletter for the benefit and interest of the members of the Society who were unable to attend the Joint meeting.

The Lecturer's intention was to present and discuss selected areas of endodontics based upon scientific research carried out in Scandinavia, particularly in the Department of Pedodontics at the University of Lund, School of Dentistry, Malmö, Sweden. These areas were (1) Biocompatibility of Pulp Capping Materials, (2) Experimental and Clinical Pulpotomy Techniques, (3) Pedodontic Endodontics, and (4) Some Complications in Pedodontic Endodontics.

The first session focused on some major principles, i.e. encapsulation, healing of chronically inflamed tissue, and the concept of biocompatibility. We are faced with an optimum of biocompatibility in the sense that we have to accept a minor local irritation from the capping material under the prerequisite that the general effect on the organism is negligible. On this ground two requirements of pulp capping materials were concluded: (1) The material shall have a superficial effect on the pulp tissue, thereby inducing a biologic encapsulation process resulting in hard tissue formation. (2) The material shall cause no adverse effects, neither in the human body as a whole nor locally in that part of the pulp to be kept alive. Thereafter, under the subheadings of physico-chemical properties and tissue response, the following materials were evaluated: calcium hydroxide paste, isobutyl cyanoacrylate, formocresol, zinc oxide-eugenol cement, and some additives (corticosteroids and antibiotics). Of these, only calcium hydroxide paste and cyanoacrylates fulfil the above requirements. Our knowledge about success and failures with calcium hydroxide paste is clearcut, that about cyanoacrylates vague and open to further research. Moreover, the discussion among the audience revealed an expanded interest for gaining better understanding for the response to topical application of corticosteroids on inflamed tissue.

The second session dealt with the value of using a so-called non-traumatic surgical technique in clinical pulpotomy, the purpose of which is to avoid mechanical damage of the pulp and to facilitate control of formation of extra-pulpal blood clot. Mechanical damage certainly impaires the prerequisites for healing. The advocated method is built on the technique to grind away pulp tissue, surrounded by dentine, with a diamond instrument and high-speed equipment during continuous irrigation with a proper agent. The technique has shown to be particularly suitable in pulpotomy of primary molars and in partial pulpotomy in permanent incisors with a complicated crown fracture.

Pedodontic endodontics, discussed in the third session, is defined as the part of endodontics dealing with treatment of primary teeth and young permanent teeth with immature roots. The purpose of endodontic treatment of primary teeth is to keep them, if possible, until the time of shedding or at least as long as they are of importance for the bite development; regarding young permanent teeth not only to preserve them but also, if possible, to secure continued root development. A series of background factors were touched upon;

medical (relating to blood diseases, hemorrhagic diatheses, chronic diseases of the kidneys, juvenile diabetes and rheumatic fever), cario-logic, orthodontic and psychologic. Aspects on contraindication for endodontic treatment, extraction, and use of antibiotics and vasoconstrictor substances in cases of the medical diseases mentioned were presented.

Diagnostic procedures related to the dynamics of inflammation was another major area. Particular interest was paid to two diagnostic levels for primary teeth, i.e. partial chronic pulpitis and total chronic pulpitis. The agreement between histologic and clinical criteria was demonstrated. Finally, some treatments of special interest were reviewed, emphasizing the therapeutic effect of calcium hydroxide; treatment of non-vital permanent incisors with immature root, treatment of permanent incisors with intra-alveolar root fracture and non-vital coronal fragment, and partial pulpotomy of permanent incisors with complicated crown fracture. The first two items concentrated on the concept of apical closure of roots and of coronal fragments and on periradicular healing. The third item elucidated recent findings with respect to the interval between accident and treatment and the size of the pulpal exposure, factors not as critical as earlier believed.

The fourth session was devoted to the complications of blood clotting and obliteration and ankylosis of traumatized permanent incisors. A series of investigations were summarized as follows. (1) An extra-pulpal blood clot between the wound surface and the calcium hydroxide seriously impairs healing under otherwise optimal conditions. From a decomposing clot a number of substances with chemotactic effect on white blood cells are released, among them fibrin, causing chronic inflammation. (2) in long-term studies, about 20% of totally obliterated teeth develop pathologic periradicular changes. Since most obliterated incisors can be successfully treated if and when radiographs indicate problems, therapy does not appear justified as a preventive routine. (3) When proper endodontic treatment is instituted in reimplanted teeth, we can expect either healing or ankylosis. Healing is defined as arrest of external root resorption with re-establishment of periodontal space bordered by lamina dura. So-called inflammatory resorption is just a secondary phenomenon to leaving teeth with necrotic pulp untreated. It seems to be an advantage if avulsed teeth, which have been kept dry for 15 minutes or more, are conditioned in an isotonic solution for about 30 minutes before reimplantation. When the dry time exceeds 30 minutes, there is a greatly increased risk of ankylosis, even if the teeth are conditioned in isotonic solution.

The presentations were supported by lecture memoranda including a list of references, and a great number of slides covering histologic, X-ray and clinical material were shown.

** Professor Lars Granath is Professor and Chairman of the Department of Pedodontics, University of Lund, Malmö, Sweden. He has published a considerable number of scientific papers and has contributed the chapter on "Pulp Capping Materials" in "Biocompatibility of Dental Materials" by Williams and Smith, and the chapter "Pathology of the Pulp" in "Oral Pathology for Students" by Gustafson. Professor Granath's blend of interests in both pedodontics and endodontics made him a most appropriate lecturer for the joint meeting. The standard of his presentation and the quality of the slides and illustrations gave clear evidence of his attention to detail in the preparation of his presentations.

A YEAR IN THE U.S.A.

Having just returned from spending a year in the Pedodontic Department of Northwestern University Dental School (NUDS), I thought that members of A.S.D.C. may be interested in hearing about some aspects of Pedodontics in the U.S.A..

N.U.D.S. is one of four dental schools in the state of Illinois and has some 120 dental students enrolled in each year of the 4 years of the D.D.S. course.

Northwestern is a private university and this results in students paying fees of approximately \$11,000 per annum for tuition. In addition, students must have already completed a minimum of three years at University (College), prior to entrance into Dental School. The Professor and Chairman of the Department of Pedodontics is Dr. William Cornell and the Dean of the Dental School is also a Pedodontist, Dr. Normal Olsen. The teaching of Paediatric Dentistry commences in the first (freshman) year with a course "Introduction to Dental Diseases" which is taught in a multidisciplinary fashion with contributions from all dental school departments. The main bulk of the didactic pedodontics, however, comes in the second (sophomore) year when 40 lectures and 60 hours of practical laboratory work are given. In addition, sophomore students commence their clinical paediatric dentistry towards the end of this academic year. The clinical work continues throughout the remainder of the course and some final year (Senior) students partake of elective courses in Paediatric Dentistry which are offered by the department.

NUDS also offers a graduate programme in Paediatric Dentistry leading to an M.S.D. degree. This programme is located at the Children's Memorial Hospital which is also part of the Northwestern University complex, but geographically located a few miles away from the Dental School. The graduate programme is under the direction of Dr. Robert Cooley and two students are enrolled in each of the two years of the course. This hospital based programme allows the graduate students, or Paediatric Dentistry Residents, as they are called, to gain an extremely high level of expertise in the treatment of physically and mentally handicapped patients and acutely and chronically ill children. Core courses in Statistics, Bio-Materials, Oral Pathology, Speech Pathology, Orthodontics etc., are taken at the Dental School and Pedodontics, Anaesthetics etc., are taken at Children's Memorial Hospital. It is interesting to note that the Graduate Paedodontic Students attend and participate in common orthodontic courses with the Orthodontic Graduate Students i.e., all lectures, tutorials, lab. courses etc., are the same. This ensures a very high level of orthodontic competence at the completion of the graduate course. Again, the graduate programme at the Children's Memorial Hospital is one of the most highly respected in the country and the quality of pedodontists produced is beyond reproach.

During the course of my stay in Chicago, I was fortunate to attend the Chicago Dental Society Midwinter Meeting, the Growth Conference at the University of Michigan and the Annual Meeting of the American Academy of Pedodontics.

The Chicago Dental Society Midwinter meeting was characterized by its size - the enormous number of participants and a trade exhibition without end. Keynote speakers included Gordon Christensen, Tom Barber and Ron Jordan (this year's ADA lecturer). The Growth and Development Conference at Ann Arbor, Michigan is an annual sponsored symposium which features a panel of internationally known experts. This year the theme was the effects of Functional Appliances and included participation by Drs. Graber, Petrovic, Van der Linden, Woodhouse, Van Limborgh, Vig and McNamara.

The American Academy of Pedodontics held its annual meeting this year at Houston, Texas. This body is the official representative of the specialty of Pedodontics in the U.S.A., and its meetings are very popular and well attended, despite the fact that only members are permitted to attend. The highlight of the meeting was the presentation by Dr. Gus Livatidis on "Resin Bonded Retainers". The standard of table clinics was also particularly high, many being presented by graduate pedodontic students from throughout the U.S.A.

I must say that spending 12 months in Pedodontics in the U.S.A. has been a most enlightening and exhilarating experience.

PETER J. GREGORY, B.D.Sc., M.D.Sc., PRINCESS MARGARET HOSPITAL FOR CHILDREN, PERTH, W.A.

FROM THE JOURNALS with John Burrow.

THE EFFECT OF FLUORIDE IN THE REMINERALIZATION OF ENAMEL CARIES.

Much evidence now exists to support the claim that small carious lesions can "heal", a process usually referred to as remineralization. The small lesion of enamel caries has been shown to consist of four well-recognized histological zones when examined with the polarizing microscope. Evidence has been presented to show that two of the zones, the surface zone and the dark zone, are formed as a result of remineralization phenomena. Remineralization occurs naturally during the formation of a carious lesion in human enamel. The degree of remineralization achieved depends upon the presence of fluoride ions in the calcifying fluid and its degree of supersaturation. It appears that only low levels of fluoride are required to trigger the mechanism of remineralization; raising the fluoride level further does not result in a greater degree of remineralization. The calcium ion concentration of the calcifying fluid is critical with respect to determining which components are supersaturated and which in turn determines the degree of remineralization achieved.

(Silerstone Leon M. J. of Public Health Dentistry Vol 42 No.1. Winter 1982).

A COMPARISON OF THE EFFECTS OF XYLITOL AND SUCROSE CHEWING GUMS ON DENTAL PLAQUE GROWTH.

Among the many types of confectionery blamed for contributing to dental decay there is firm evidence incriminating chewing-gum. This came to light in trials of gums containing possible caries-inhibitory agents or sweetening agents other than sucrose, cane or beet sugar.

In the past few years manufacturers have been striving to produce less cariogenic types of chewing-gum either by adding caries-inhibitory agents (usually phosphate compounds) or by reformulating the gums with sweeteners other than sucrose. In practice this has generally meant using a blend of sorbitol and mannitol, both of which are polyhydric alcohols (polyols) closely related chemically to the sugars, producing what are often called "sugarless" gums.

The major positive finding was that the weight of plaque collected was significantly lower after using xylitol gum over a 3-day period than after conventional

sucrose gum. The results indicate that xylitol used in place of sucrose in gum could be of value in relation to periodontal disease since the bulk of the plaque was collected from the dento-gingival areas, and the role of plaque in the aetiology of periodontal disease is well established.

The relevance of these findings to dental caries is not clear, but evidence is gradually accumulating that individuals who form the most dental plaque tend to have the greatest dental caries experience. In this study a positive correlation was found between the individual plaque scores and caries experience.

(Grenby T.H. et al B.D.J. 152:339
May 18 1982)

ANXIETY: ITS MANAGEMENT DURING THE TREATMENT OF THE ADOLESCENT DENTAL PATIENT.

The adolescent dental patient can be described as the "forgotten patient" since most dental schools have been structured to treat adults in general while children are treated in a designated paedodontic department. Yet the adolescent who lies somewhere between these two groups, has specific problems which should be considered when dental treatment is contemplated.

Surveys indicate that the adolescent, in particular, suffers from acute anxiety in relation to dentistry. This anxiety is promoted by the general opinion they form of dentistry and dentists through portrayal by their peers and the media. In addition, their own attitudes to dentistry is influenced to a large extent by the dentist himself. This patient-dentist relationship is especially important when treating the adolescent and this should be emphasized in the dental undergraduate curriculum. Psychological methods can be effective in overcoming anxiety but they may be time consuming.

Pharmacological techniques remain the principal method of stress reduction. The newer benzodiazepines combine a more rapid onset with accelerated recovery. Nitrous oxide remains a safe and predictable agent. Intravenous sedation has evolved from a general anaesthetic technique to a predictable conscious sedation technique.

With the combination of the psychological and pharmacological techniques available anxiety for the adolescent may be overcome. Int.D.J. Vol 32 No 1

FREE PAPERS LIST(Continued from Page 7)

- | | |
|------------------------------|--|
| Davis, .J.
Hong Kong | The dental treatment needs of handicapped children and young adults in Hong Kong. |
| Kurosu, K.
Japan | Effect of periapical inflammation of deciduous tooth on the permanent tooth germ. |
| Tatic, E.
Yugoslavia | The effects of dental health education with small groups of children. |
| Andlaw, R.J.
U.K. | A study of the caries experience of 11- and 14-year old Bristol children. |
| Tegsjo, U.
Sweden | Clinical Evaluation of intra-alveolar transplantation of teeth with cervical root fractures. |
| Pauly, R.
Costa Rica | Comparative study of the incidence of dental caries in Costa Rican children, by clinical and radiographic methods. |
| Ritchie, J.
Zimbabwe | Eruption of deciduous incisors in a group of black Zimbabwean children. |
| Moon, Ho, C.
Korea | ▲ study of the change of dental caries prevalence of Korean children aged from 3 to 5. |
| Brown, R.H.
New Zealand | Families at risk - paedodontic preventive and management implications in a changing society. |
| Koide, T.
Japan | Effects of the pH of calcifying solution on in vitro enamel remineralization. |
| Ohmori, I.
Japan | Utilization of adhesive resin in pedodontic practice. |
| Valentine, A.D.
U.K. | Religion and dental caries. |
| Adenubi, J.O.
Nigeria | The Gingival Health of 8 year old Nigerian Children. |
| Galindo, F.
Colombia | Age Changes in Soluble Fluoride Concentration in Dentrifices - Clinical Evaluation Over Two Years. |
| Brown, J.P.
Australia | Studies of "Bottle Caries" in Australian Children. |
| Bellet Cubella, A.
España | A plan is proposed for a private dental caries prevention programme to be carried out at the Institute de Odontologia Preventive de Barcelona. |
| Winter, G.B.
England | The Association of Ocular Defects with the Otodental Syndrome. |
| Bier-Katz, G.
W. Germany | "Baby-Bottle Syndrome": A View and Treatment. |
| Yamaguchi, K.
Japan | Electromyographic Evaluation on the Effects of Preformed Primary Crown for Deciduous Molars. |
| Raadal, M.
Norway | Efficiency of fissure-sealing of first permanent molars. |
| Miller, J.
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